

Part I

Answer all 24 questions in this part. Each correct answer will receive 2 credits. No partial credit will be allowed. Utilize the information provided for each question to determine your answer. Note that diagrams are not necessarily drawn to scale. For each statement or question, choose the word or expression that, of those given, best completes the statement or answers the question. Record your answers on your separate answer sheet. [48]

Use this space for computations.

- 1 Bryan's hockey team is purchasing jerseys. The company charges \$250 for a onetime set-up fee and \$23 for each printed jersey. Which expression represents the total cost of x number of jerseys for the team?

- (1) $23x$ (3) $23x + 250$
(2) $23 + 250x$ (4) $23(x + 250)$

- 2 Which table represents a function?

x	y
2	-3
3	0
4	-3
2	1

(1)

x	y
-3	0
-2	1
-3	2
2	3

(3)

x	y
1	2
1	3
1	4
1	5

(2)

x	y
-2	-4
0	2
2	4
4	6

(4)

- 3 Which expression is equivalent to $2(x^2 - 1) + 3x(x - 4)$?

- (1) $5x^2 - 5$ (3) $5x^2 - 12x - 1$
(2) $5x^2 - 6$ (4) $5x^2 - 12x - 2$

- 4 The value of x that satisfies the equation $\frac{4}{3} = \frac{x+10}{15}$ is

- (1) -6 (3) 10
(2) 5 (4) 30

Use this space for
computations.

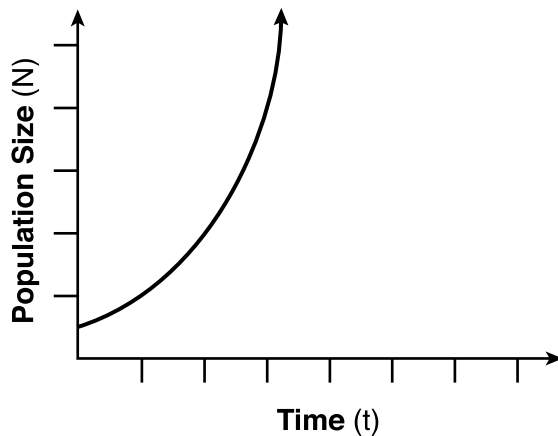
- 5 Josh graphed the function $f(x) = -3(x - 1)^2 + 2$. He then graphed the function $g(x) = -3(x - 1)^2 - 5$ on the same coordinate plane. The vertex of $g(x)$ is
- (1) 7 units below the vertex of $f(x)$
 - (2) 7 units above the vertex of $f(x)$
 - (3) 7 units to the right of the vertex of $f(x)$
 - (4) 7 units to the left of the vertex of $f(x)$

- 6 A survey was given to 12th-grade students of West High School to determine the location for the senior class trip. The results are shown in the table below.

	Niagara Falls	Darien Lake	New York City
Boys	56	74	103
Girls	71	92	88

To the *nearest percent*, what percent of the boys chose Niagara Falls?

- (1) 12
 - (2) 24
 - (3) 44
 - (4) 56
- 7 Which type of function is shown in the graph below?



- (1) linear
- (2) exponential
- (3) square root
- (4) absolute value